

cellular carcinoma (HCC) on the liver function of the patients were analyzed.

Methods: The patients' liver function were assessed according to Child-Pugh criteria before and after the therapy.

Results: The numbers of the patients with Child A, Child B and Child C were 181, 52 and 6 before interventional therapy for HCC, and 132, 82 and 25 after the therapy ($P < 0.01$). The number of the patients with Child A decreased and that of the patients with Child B and Child C increased, but the liver function of some of the patients with Child B and Child C transformed into Child A or Child B after the two weeks of the therapy. Analysis of the patients whose serum levels of total bilirubin (Tbil) and aspartate aminotransferase (AST) were above 50 $\mu\text{mol/L}$ and 120 U/L, and whose serum levels of albumin (ALB) and acetylcholine esterase (CHE) were below 25g/L and 1500 U/L showed that there was no notably changing of the levels of these marks after the therapy ($P > 0.05$). Compared to the patients with Child B and Child C, the patients with Child A had higher levels of Tbil and AST and lower levels of ALB and CHE after the therapy than before ($P < 0.01$).

Conclusions: The interventional therapy for HCC had worse effects on the liver function of the patients, but carefully protecting the liver function by medicine treatment before and after the interventional therapy will reduce the effects.

PP-068 Dolichol in urine might serve as a laboratory marker of drug resistance in HBV

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Background: Dolichyl (Dol), the main lipid intermediary of Dolichyl Phosphate Cycle (DPC) has been reported to be elevated in urine of patients with multidrug resistance in cancer. Drug resistance poses a major threat to nucleoside analogue-based therapies for chronic HBV infection.

Methods: With focus on a marker for susceptibility to the development of HBV drug resistance the study was carried out to estimate urinary Dol in patients with chronic HBV infection. The samples obtained every week before and during the course of treatment from 42 patients with HBV. The occurrence of exacerbations of chronic HBV were registered for 2 years. Dol in urine was assayed by HPLC method (Turpeinen, 1986).

Result: The normal amounts of Dol in healthy persons urine ($n=1500$) are 6.0 ± 10.0 mg/mmol creatine. During the period of observation 36 (86%) of patients treated with nucleoside analogue-based therapies were diagnosed with exacerbations due to resistance of hepatitis B virus to antiviral drugs. From this group of HBV patients 35 (98%) have had elevated urinal Dol excretion (45.8 ± 5.2 $\mu\text{g/ml}$ vs. 8.2 ± 1.9 $\mu\text{g/ml}$, $p < 0.0001$) in more than 3 months of observation.

Conclusion: There is a reason to suggest that elevated urinal Dol detected in patients with exacerbations during HBV treatment may evidence of possible defect of host mechanism of drug resistance development to nucleoside analogue-based therapies. The interest drawn to the employment of Dol as a predictor for exacerbation of chronic HBV is explained by the role of DPC in P-glycoprotein regulation in human hepatocytes.

PP-069 The molecular mechanism of HBc downregulating DR5 expression

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Background: We have found, for the firstly, that HBV core protein (HBc) downregulated DR5 expression. But the mechanism is not clear. The purpose of the study is to probe the molecular mechanism

though which HBc downregulated TRAIL death receptor 2 (DR5) expression.

Methods: Western blot and Dual-luciferase assay were used to detect the DR5 expression and the DR5 promoter activity with or without HBc expression. Oligonucleotide chip assay to screening the Differentially Expressed Genes after HBc transfection. Real-time PCR and Western blot to verify the Differentially Expressed Genes.

Result: HBc decreased the expression of DR5. The further study showed HBc significantly repressed the promoter activity of the human DR5 gene. To further explore the mechanism how HBc affects DR5 promoter, we examined the microarray chip assay. The microarray analysis indicated that HBc also represses P53 expression. Recently, Researchers have found that P53 can affect DR5 promoter activity. Whether the HBc-p53 pathway plays a significant role in regulating DR5 expression needs to be further studied.

Conclusion: Our results establish that HBc may decrease DR5 expression though impairing P53 expression. Additionally, HBc may prevent hepatocytes from TRAIL-induced apoptosis by blocking DR5 expression, which in turn contributes to the development of chronic hepatitis and HCC.

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PP-070 Infants non- and low-response after recombinant yeast derived hepatitis B vaccinated and influencing factors analysis

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Objective: To understand the non-and-lowresponse of infants after recombinant yeast derived hepatitis B vaccinated and analysis the influencing factors.

Methods: 2788 infants born during 2004-2005 were vaccinated with $5\mu\text{g} \times 3$ hepatitis B vaccinated by 0,1,6 months schedule. The seromarks (HBsAg, anti-HBs, anti-HBc) were detected by RIA, and collected some information from the parents by questionnaires.

Results: After three doses; the min- titres of anti-HBs was 0.18 mIU/ml, the max -titres was 19736.00 mIU/ml, the GMC was 264.33 mIU/ml. The percentage of Non- and low-response was 16.89%, with non-response was 1.72% and low-response is 15.17%, in which, males' was higher than female, premature was higher than mature, low-birthweight infants was higher than normal. but no statistic differences were seen ($p > 0.05$).

Conclusions: Non-and-lowresponse of infant after hepatitis B vaccinated was 16.89%, and the non-response was 1.72%. No effects of the gender, abortion and birth-weight were observed.

PP-071 Evaluation of the impact of hepatitis B vaccination among children born between 1992 and 2005 in China

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Background: Endemic hepatitis B virus (HBV) infection is a serious health problem in China. Hepatitis B vaccination of infants was introduced in 1992, and progressively expanded during the subsequent 15 years.

Methods: National serosurvey, with participants selected by multi-stage random sampling. Demographics and hepatitis B vaccination history collected by questionnaire and review of vaccination records, and serum tested for hepatitis B surface antigen (HBsAg), antibody to hepatitis B core antigen (anti-HBc) and hepatitis B surface antibody (anti-HBs) by ELISA.

Results: Hepatitis B vaccine coverage (3 doses) increased from 30.0% for children born in 1992 to 93.4% for children born in 2005. Timely birth dose increased from 22.2% to 82.6% for

children born during this interval. Multivariate analysis showed that older age, western and rural residence, birth at home, and certain ethnicities were risk factors for under-vaccination with both full vaccine series and timely birth dose. HBsAg prevalence was reduced to 2.1% among all children and 1.0% among children born after 1999. Effectiveness of hepB vaccination with timely birth dose was 88.3%.

Conclusions: Hepatitis B vaccine has been successfully integrated into routine infant immunization in China, now reaching most infants within 24 hours of birth, and HBsAg prevalence greatly reduced among children born after 1992.

PP-072 Study on the probability of HBV infection among the public service places

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Background: It is useful data for the control for hepatitis B by investigating HBsAg among the appliances and practitioners in the public service places (PSP).

Methods: 63 beauty parlors, barber shops and bathing centers selected by stratified randomization sampling, 682 workers were investigated in questionnaire. HBsAg was detected by RIA.

Results: There were two main sanitizing modes of alcohol cleaning (34.60%) and ultraviolet light disinfection (30.79%). The rate of HBsAg among the appliances was 2.13%. The rate in large-, medium- and small-sized PSP was 0.63%, 2.67% and 3.70% respectively, and has statistic different ($\chi^2=6.68$, $P<0.05$). The rate among the appliances of beauty parlors, barbering shops and footbath inns was 2.97%, 0.61% and 3.42% respectively. Different appliances had different rate of HBsAg, the rate among the acne needle and the forceps was 5.13% and 4.17%. The rate of HBsAg among the workers in PSP was 7.13%. and the rate among the workers in large-, medium- and small-sized PSP was 7.34%, 8.33% and 2.94% respectively. The rate among the workers in beauty parlors, barbering shops, footbath inns and bathing centers was 9.01%, 6.37%, 4.35% and 7.29% respectively. The HBsAg rate among the workers was different, the rate was higher in the tattoo workers (13.33%), the pedicures workers (12.68%), the Massagists (8.03%).

Conclusions: It is important to enhance the appliances sanitizing management used in PSP and improve KAP about HepB. We should promote the public the knowledge of control and prevention for Hepatitis B and build up the supervision consciousness

PP-073 A case-control study on the risk factors of HBV infection in the public service places

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Background: It was useful data for the control and prevention of hepatitis B by investigating the correlation risk factors of HBV infection in the Public Service Places (PSP).

Methods: A case-control study was carried out for the comparison of 'case group' and 'control group'. The case group was

201 which were randomly selected from those first diagnosed Hepatitis B in the epidemic hospitals. The control group was 289 of HBsAg negative selected with similar terms including in inhabitation, sex, age and the no-PSP correlation risk factors of HBV. HBsAg of 2 groups was checked by RIA.

Results: Data from multivariate unconditional Logistic regression analysis showed that the independent risk factors for HBV infection in the PSP were: history of skin scathing (OR=2.64, 95% CI: 1.09-6.35), shaving (OR=2.53, 95% CI: 1.22-5.21), pedicuring (OR=2.43, 95% CI: 1.49-3.97), tattooing et al (OR=2.01, 95% CI: 1.38-2.87). And it showed that the factors for preventing HBV infection were inoculating Hepatitis B vaccine (HepB) (OR=0.17, 95% CI: 0.11-0.28) and HBV KAP scoring (OR=0.95, 95% CI: 0.90-1.00).

Conclusions: It would be effectively reduced the probability of HBV infected in the PSP to enhance the sanitizing management of the appliances, establish standard operation, strengthen the Knowledge, Attitude, and Practice (KAP) and HepB vaccination in the public.

PP-074 Prevalence of a virus similar to human hepatitis B virus in swine

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Objectives: Orthohepadnaviruses have been identified in many mammals. In China, many researchers have concentrated on a group of HBV-like viruses in domestic animals. This study established evidence of the existence of a HBV-like virus endemic in swine.

Methods: Totally 416 aliquots of swine serum were collected from pig farms determine the seroprevalence of SHBV infection with a commercial enzyme-linked immunosorbent assay (ELISA) kit. And two swine with a high titer of HBsAg in serum and another that was negative for all serological markers were selected for necropsy. Pathological change, distribution of the virus antigen include HBsAg and HBcAg in organs and tissues been determined by Histopathological studies and immunohistochemical staining, and viral particles in swine sera and hepatocytes has been detected by transmission electron microscopy (TEM).

Results: Screened results show that overall prevalence of HBsAg was 24.8%, and related to anti-HBsAg, whereas HBeAg and anti-HBe were barely detectable. Typical hepatitis pathological change, such as spotty parenchymal cell degeneration, necrosis of hepatocytes and proliferation of fibrous connective tissue, were observed during histopathological analysis. Analysis of HBsAg-positive serum with TEM revealed two morphologic forms, with 20nm or 40nm sized particles, similar to small spherical and Danes particles of HBV. Observation of the ultrastructure of the liver also found virus-like particles in the nucleus of hepatocytes. **Conclusion:** Our research implies that SHBV is a causative agent of swine. The discovery of SHBV unveils novel evolutionary aspects of hepatitis and provides new information for further hepadnavirus research.

PP-075 Research on distribution of hepatitis B virus genotypes and subgenotypes in unique minorities of Yunnan Province in China

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Background: There are 2584 sera were collected in general, Who Including Ba, Dai, Lisu, Achang, Pumi, Mosuo, Naxi, Dulong, Bulang 9 special minorities of Yunnan Province. There are 1153 males and 1431 females.

Methods: Hepatitis B virus immunologic marker were test by